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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,246	10/09/2001	Sami Mangoubi	26/414	3978

7590 04/19/2004

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EXAMINER

SONG, HOON K

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/972,246	MANGOUBI, SAMI	
	Examiner	Art Unit	
	Hoon Song	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Macken (US 5128953).

Regarding claim 1, Macken teaches an optical window assembly comprising:

(a) an outer window (11);

(b) an inner window (12);

(c) a housing (18), wherein said outer window and said inner window are mounted, said housing holding said outer window and said inner window apart, thereby forming an intervening space (T) between said outer window and said inner window.

(d) a coolant (13) occupying said intervening space; and

(e) a mechanism (24) for cooling said coolant.

Regarding claim 6, Macken teaches that said outer window includes an outer surface facing away from said inner window and an inner surface facing towards said inner window, wherein said inner window includes an outer surface facing towards said outer window and an inner surface facing away from said outer window, and wherein at least one of said surfaces is coated with an antireflective coating (column 2 line 50+).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 5776612) in view of Macken.

Regarding claim 1, Fisher teaches an optical window assembly comprising:

(a) an outer window (42);

(b) an inner window (40);

(c) a housing (26), wherein said outer window and said inner window are mounted, said housing holding said outer window and said inner window apart, thereby forming an intervening space (70) between said outer window and said inner window.

(d) a coolant (air) occupying said intervening space.

However Fisher fails to teach (e) a mechanism (24) for cooling said coolant.

Macken teaches a mechanism for cooling a coolant between two optical members.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the window of Fisher with the window cooling mechanism as taught by Macken, since the device of Macken would provide effective heat removal to prevent thermal stress from the optical members (column 2 line 25+).

Regarding claim 2, Fisher teaches that said outer window includes an outer surface facing away from said inner window and an inner surface facing towards said inner window, wherein said inner window includes an outer surface facing towards said outer window and an inner surface facing away from said outer window (figure 6), and wherein at least one of said surfaces is coated with an optical coating that is substantially transparent in at least one wavelength bared selected from the group consisting of visible wavelength bands and infrared wavelength bands and that is substantially opaque to electromagnetic radiation of radio and radar frequencies (column 1 line 55+).

Regarding claim 3, Fisher as modified by Macken teaches that said inner surface of said inner window is coated with said optical coating (figure 4).

Regarding claim 4, Fisher teaches that said optical coating is electrically conductive (figure 4).

Regarding claim 5, Fisher teaches that said optical coating includes at least one material selected from the group consisting of doped gallium arsenide and doped germanium (column 7 line 32+).

Regarding claim 6, Macken teaches that said outer window includes an outer surface facing away from said inner window and an inner surface facing towards said inner window, wherein said inner window includes an outer surface facing towards said outer window and an inner surface facing away from said outer window, and wherein at least one of said surfaces is coated with an antireflective coating (66, 72, 74 and 84).

Regarding claim 7, Macken teaches that said outer surface of said outer window, said inner surface of said outer window and said outer surface of said inner window are coated with said anti-reflective coating (66, 72, 74 and 84).

Regarding claim 8, Fisher teaches that said anti-reflective coating is heat resistant (column 6 line 35+).

Regarding claim 9, Macken teaches that said intervening space is occupied by a vacuum.

Regarding claim 10, Macken teaches that said intervening space is occupied by a thermally insulating substance (He gas).

Regarding claim 11, Macken teaches that said thermally insulating substance is a gas (He).

Regarding claim 13, Fisher teaches that said windows are planar (figures).

Regarding claim 14, Fisher as modified by Macken fails to teach that said windows are curved.

However, applicant has not stated any criticality associated with the use of curved shaped window nor that it solves any long standing problem in the art. Consequently, the use of curved shaped window is considered to be a matter of obvious design choice based on routine experiments.

Response to Arguments

Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494. The examiner can normally be reached on 8:30 AM - 5 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER